

# The Essence of Winning and Losing

**The Essence of  
Winning &  
Losing**



*28 June 1995  
John R. Boyd  
(Rev. January 1996)*

# Key Statements

- *Without our genetic heritage, cultural traditions, and previous experiences*, we do not possess an *implicit* repertoire of psychophysical skills shaped by environments and changes that have been previously experienced.
- *Without analyses and synthesis*, across a variety of domains or across a variety of competing/independent channels of information, we cannot evolve new repertoires to deal with unfamiliar phenomena or unforeseen change.
- *Without a many-sided implicit cross-referencing process of projection, empathy, correlation, and rejection*, (across these many different domains or channels of information), we cannot even do *analyses* and *synthesis*.
- *Without OODA loops*, we can neither sense, hence observe, thereby collect a variety of information for the above processes, nor decide as well as implement actions in accord with those processes.

## or put another way

- *Without OODA loops* embracing all the above and *without the ability to get inside other OODA loops* (or other environments), we will find it impossible to comprehend, shape, adapt to, and in turn be shaped by an unfolding, evolving reality that is uncertain, everchanging, unpredictable.

**We can further clarify these statements and their interactions by the following sketch**

# The OODA "Loop"

## Sketch

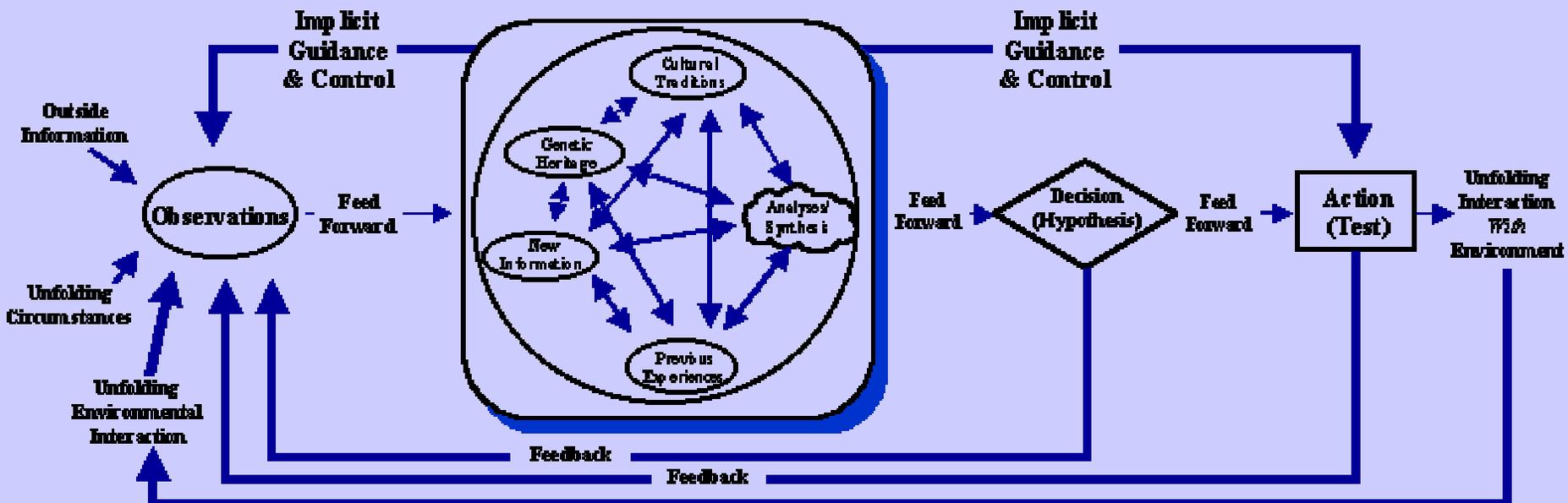
Observation

Orientation

Decision

Action

Click on box to expand



### Insights:

Note how orientation shapes observation, shapes decision, shapes action, and, in turn, is shaped by the feedback and other phenomena coming into our sensing or observation window.

Also note how the entire "loop" (not just orientation) is an ongoing many-sided implicit cross-referencing process of projection, empathy, correlation, and rejection.

# Illumination

By pulling all this together, we can see that the *Key Statements*, *OODA Loop Sketch*, and related *Insights* represent an evolving, open-ended, far-from-equilibrium process of *self-organization*, *emergence*, and *natural selection*.